

REMARKS

Claims 1, 12, and 21 have been amended. Support for the new claims may be found at least at lines 4-5 on page 14 of the Patent Application. Claims 1-21 are pending in the present application.

In the Office Action, the Examiner objected to the specification because of a missing parenthesis on page 14. The specification has been amended to correct this typographical error. Applicants respectfully request that the Examiner's objection to the specification be withdrawn.

In the Office Action, claims 1, 7-12, 18-21 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stosz, et al (U.S. Patent No. 6,408,179) in view of Hartley, et al (U.S. Patent No. 4,868,863). Claims 2-3 and 13-14 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stosz in view of Hartley and further in view of Spelman (U.S. Patent No. 5,680,458). Claims 4 and 15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stosz in view of Hartley and further in view of Mergard (U.S. Patent No. 5,881,248). Claims 6 and 17 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Stosz in view of Hartley and further in view of Whitmire (U.S. Patent No. 6,115,817). The Examiner's rejections are respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. That is, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810

F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. Third, there must be a reasonable expectation of success. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. A recent Federal Circuit case emphasizes that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 143 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

With regard to independent claims 1, 12, and 21, Applicants describe and claim receiving digital data over a communications channel, extracting control codes from the digital received signal, and generating an authentication code based on at least one extracted control code. Applicants also describe and claim transferring the control codes and the authentication code to a physical layer hardware unit of the transceiver, configuring assigned transmission parameters of the physical layer hardware unit based on the control codes, and signaling a security violation in response to the control codes being inconsistent with the authentication code.

Stosz teaches that a base station 32 and a point-to-point (PTP) subscriber radio 26 may exchange a series of messages over a synchronization channel 60 while the PTP subscriber radio

26 adjusts transmission parameters, such as a power level, a carrier frequency, and timeslot timing during synchronization. See Stosz, col. 7, ll. 29-34 and Figure 1. However, Stosz does not appear to teach or suggest extracting control codes from a digital received signal, as set forth the claims 1, 12, and 21. Moreover, as admitted by the Examiner on page 2 of the Office Action, Stosz fails to discuss authentication codes or security violations.

The Examiner relies upon Hartley to teach generating an authentication code, such as a hash or a checksum. Hartley is directed to an apparatus that includes hardware for connecting data processing equipment to communication networks that may operate according to a range of different communication standards. In particular, a modem 3 includes a digital signal processor 23, which processes signals presented to it in accordance with a control code stored in a random access memory 24. See Hartley, col. 4, ll. 52-55 and Figure 3. The modem 3 is connected to a coupler 4, which contains a country identifier that is read by the modem 3 and which is used to load required code into the random access memory 24. The modem 3 includes a converter/control logic unit 25 that may read the country identifier from the coupler 4 and compare the country identifier with a country identifier of the code stored in the random access memory 24. If there is an inequality, the converter/control logic unit 25 will not enable the modem 3. See Hartley, col. 5, ll. 7-19 and Figure 3. A check may be made to determine whether an incorrect control code has been loaded into the modem 3. For example, Hartley teaches that an appropriate country parameter file may be selected from a diskette and transferred to the modem 3, which may compare the country parameters with a hash checksum contained in the parameter file.

However, Applicants respectfully submit that Hartley does not teach or suggest extracting control codes from the digital received signal. In contrast, as discussed above, Hartley teaches

that control codes are stored in a random access memory or on a diskette. Furthermore, Applicants respectfully submit that Hartley also fails to teach or suggest generating an authentication code based on at least one extracted control code. Accordingly, Applicants submit that the prior art references, either alone or in combination, fail to teach or suggest all the claim limitations.

Applicants also submit that the cited references fail to provide any suggestion or motivation to modify the prior art to arrive at Applicants' claimed invention. As admitted by the Examiner, Stosz is completely silent with regard to authentication codes or security violations. Hartley appears to be completely silent with regard to generating an authentication code based on at least one extracted control code. Furthermore, Hartley appears to teach away from extracting control codes from the received digital signal by teaching that control codes are stored in, and retrieved from, a random access memory or a diskette. It is by now well established that teaching away by the prior art constitutes *prima facie* evidence that the claimed invention is not obvious. *See, inter alia, In re Fine*, 5 U.S.P.Q.2d (BNA) 1596, 1599 (Fed. Cir. 1988); *In re Nielson*, 2 U.S.P.Q.2d (BNA) 1525, 1528 (Fed. Cir. 1987); *In re Hedges*, 228 U.S.P.Q. (BNA) 685, 687 (Fed. Cir. 1986).

For at least the aforementioned reasons, Applicants respectfully submit that the Examiner has failed to make a *prima facie* case that claims 1, 7-12, and 18-21 are obvious over Stosz in view of Hartley. Applicants request that the Examiner's rejections of these claims be withdrawn.

With regard to claims 2-4, 6, 13-15, and 17, the Examiner relies upon Spelman, Mergard, and Whitmire to teach an out-of-band authentication code, use of an unused portion of a bus, and use of network data cryptography, respectively. However, these references fail to remedy the aforementioned fundamental deficiencies of Stosz and Hartley. Thus, for at least the reasons

discussed above, Applicants respectfully submit that claims 2-4, 6, 13-15, and 17 are not obvious over the cited references and request that the Examiner's rejections be withdrawn.

In the Office Action, the Examiner indicated that claims 5 and 16 contain allowable subject matter but objected to these claims because they depend upon a rejected independent claim. In view of the arguments above, Applicants respectfully submit that claims 5 and 16 are in condition for allowance and request that the Examiner's objections to these claims be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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